third of the cases of apoplexy. It is observed as the result of lesions in different parts of the cerebrum, often in the vicinity of the corpus striatum, peduncles, and tubercula quadrigemini. The muscular spasm is evidently due to an intracranial irritation of the motor eye-nerves. Hunnius and Leichtenstern are of the opinion that, if in unilateral convulsions, the eyes and head deviate toward the other side, the lesion is in the pons, in which they think there is undoubtedly a common centre for the sixth and third nerves, probably near the nucleus of the sixth. Beeror calls attention[1] to the frequent association of conjugate lateral deviation of the eyes with epilepsy. He observed it in 11 out of 13 cases.

The following exceedingly interesting case[2] has been reported by Bechterew.

CASE XXXVII.—A patient, aged 36 years, had hemiplegia of the right side together with progressive paralysis involving other muscles. The head and eyes were also rotated at first toward the right side, the eye-muscles being affected with clonic contractions. As death approached, the head and eyes were turned toward the left side. The autopsy revealed internal hydrocephalus, atrophy of the frontal, and anterior central convolutions and sclerosis of the right lateral column.

A very rare condition is what A. Gräfe calls disjunction of the coördinative movements of the eyeballs. In this condition the visual axes of the two eyes may strongly converge, or one eye may turn outwards to the right, and the other to the left, or one may be directed upwards and the other downwards, or one inwards, and the other upwards. Gräfe observed such a case in a boy with brain disease. At one time one eye would turn slowly outwards and the other upwards, and, in a few seconds, they would assume other peculiar positions.

ARTICLE III.

A CASE OF ERYSIPELAS COMPLICATING PREGNANCY.

By WILLIAM L. WARDWELL, M.D., Late House Surgeon Bellevue Hospital, New York; Assistant Surgeon N. Y. Polyclinic; Attending Surgeon, University College Dispensary.

K. H., aged 26 years, of Irish parentage, a small, slightly-built woman, was admitted to the female erysipelas pavilion of Bellevue Hospital, November 28, 1882, suffering from a cutaneous erysipelas of the right side of the face. The initial chill with some gastric disturbance had occurred on the morning of the 27th. The blush first appeared on the morning of the day she entered the hospital. Questioning subsequently elicited the facts that she had borne no children; had miscarried two years previously;

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[1] Brit. Med. Journ., Jan. 21, 1882.

[2] St. Petersb. med. Wochenschr., 1881, Nos. 11-13.

and had never before been attacked by erysipelas. She volunteered the information that she was then three months advanced in pregnancy.

Her temperature taken at this time was 103½° Fahr. On the morning of November 29 she experienced labour-pains, which increased in severity until six o'clock in the evening, when she aborted. An intrauterine douche of carbolic acid (1—60) was given, and ordered to be repeated every four hours, in addition to tinc. ferri chlorid. ♏ x, every two hours. Quin. sulph. gr. v, t. i. d., and local applications of lead and opium wash to the inflamed integument, which had been prescribed the day before. During that night the patient rested well, her temperature sank to 98½° during the early morning hours, and she complained of no pain in abdomen or parturient canal. 30th, 7.30 A. M. had a slight chill and her temperature, which before the chill was normal, immediately began to rise, and at 10 A. M. was 103⅔°. The administration of an intrauterine douche which was due at that time reduced the temperature to 102½°, but it rose again rapidly, and at 4 P. M. was again 103⅗°. About this time she began to complain of pain in the abdomen. The belly was slightly tense, and complaint was elicited when pressure was made over the uterus; the douche washings were slightly stained with blood, but the discharge was not offensive. The erysipelas still persisted, but had not progressed beyond its original limits. Knowing that many cases of puerperal fever had been traced to poisoning by erysipelas, great anxiety was aroused as to the ultimate result of the case, especially as the appearance of uterine symptoms and the continuous high temperature led me to fear a similar complication.

At nine o'clock in the evening my colleague, Dr. Fruitnight, kindly made, at my request, an examination of the vagina and uterus. The os was found to be dilated, and the uterine cavity filled with a soft body, which was removed with placental forceps, and was found to consist of blood clots and a few shreds of membrane. Her temperature sank during the night, and at 4 A. M. of December 1st was 101¼°, but at 10 A. M. had risen to 102¾°. It was remarked at this time that the blush had spread to the other side of the face. This was sufficient to explain the chill and high temperature of the previous day. The abdominal symptoms had much improved. The douches were only slightly stained, and were not offensive. At 2 P. M. the temperature was 104½°; this was the highest point that it reached during the day. During the night it again fell, and at 4 A. M. of December 2d was only 99°. On this morning a further progression of the erysipelatous blush was observed, it having invaded one side of the neck. At 10.40 A. M. experienced a very severe chill, her temperature rose rapidly, and at 12 M. was 103¼°. During the afternoon she again complained of pelvic pains; a uterine examination revealed nothing. 3d, 8 A. M. Temperature normal; a number of clots were present in the douche water. The erysipelas during the night had spread over the upper portion of the left side of the chest. During the afternoon her temperature rose to 103½°, but during the night fell again, and at 4 A. M. of December 4 was 98½°.

The remainder of the history is quickly related. After the passage of the clots on November 3d, the uterine symptoms completely subsided. Intrauterine douches were kept up for two days, but at the end of that time, as they were not even streaked with blood, they were discontinued, and in their stead was substituted a vaginal douche, morning and evening. During the further course of the disease the febrile movement was as follows:—

Dec. 4. 8 A.M., 98½°; chill, 12.45 P.M.; 1 P.M., 99½°; 5 P.M., 101°.
5th. 8 A.M., 99°; chill slight, 10 A.M.; 1 P.M., 103⅕°; 5 P.M., 102¾°.
6th. 8 A.M., 98½°; chill none, 10 A.M.; 1 P.M., 98½°; 5 P.M., 98½°.
7th. 8 A.M., 98½°; chill, 10.40 A.M.; 1 P.M., 103°; 5 P.M., 104°.
8th. 8 A.M., 98½°; chill none; 1 P.M., 98½°; 5 P.M., 100½°.
9th. 8 A.M., 104°; chill, 4 A.M.; 1 P.M., 104°; 5 P.M., 100°.
19th. 8 A.M., 98½°; chill none; 1 P.M., 98½°; 5 P.M., 98½°.

During these six days the progress of the erysipelas was continuous, the blush wandered over both sides of the chest and down the back to the lower borders of the scapulæ, and back again over both sides of the face. No further uterine disturbance was experienced.

In summarizing this case it can be said that it was a case of erysipelas lasting twelve days, marked by an almost daily chill and febrile rise, with a distinct *remission*, oftentimes *intermission*, of the fever in the morning. Each one of these febrile disturbances was followed by a distinct progression of the erysipelatous blush, and was seemingly a proclamation of a new invasion of tissue by the disease. Upon the second day of the disease the patient aborted, and for four days thereafter experienced abdominal pains, which, taken in connection with the chills and high temperature, aroused suspicions of uterine inflammation as the result of absorption of erysipelas poison by that organ.

All of these symptoms left her on the sixth day of the disease, and she quitted the hospital several weeks later completely cured. During the course of the disease every opportunity for absorption of poison by the uterus was present. Isolation of the patient was impossible. The other beds in the pavilion, eleven in number, were filled with cases of erysipelas, both cutaneous and cellular, one being a particularly severe case of phlegmonous erysipelas of the leg and thigh. The nurse and physician were the only skilled attendants upon the patient, and while the former confined her attentions as far as possible to this one patient, she could not avoid contact at times with the others. She was instructed in intrauterine douching, which she performed thoroughly, and always preceded by thorough disinfection of her hands and of the douche bag. These douches were given with a view to prophylaxis, following the treatment then in high repute upon the fourth medical division of Bellevue Hospital, of often-repeated uterine douches in puerperal fever.

The question of the relationship between erysipelas and puerperal fever has always been an interesting one—one over which discussion has been frequent and opinions varying. Many are the instances of epidemics of puerperal fever in which the apparent exciting cause has been a case of erysipelas, and where the puerperal fever patients have in turn caused erysipelas in their attendants. Simpson considers the two synonymous; but while this view of the matter is not accepted at the present day, the tendency among the profession is to regard the connection between these diseases as a close one, and to hold the practitioner who attends cases of erysipelas and of labour at the same time guilty of gross carelessness, if not even of malpractice.

It is not the object of this paper to discuss this question in all of its bearings, but to restrict it to those cases in which the physician is *forced* to treat both conditions—in those cases in which erysipelas complicates pregnancy and produces premature labour. When a pregnant woman is attacked by erysipelas, in what proportion of cases does abortion occur? At what period of the disease does abortion occur? What influence have the situation and variety of the disease upon the prognosis? What is the mortality from such a coincidence? These were questions that I asked myself during the progress of my case—questions that no one seemed able to answer, and upon which the text-books were silent. For the purpose of answering these questions, if possible, I have looked up the literature of the subject; the results of this search are comprised in the accompanying table.

These cases, twenty-five in number, are all that I have been able to collect after an extended search through the medical literature of this century. Admitting that I may have omitted to note some of the published cases, and admitting that many cases have not been published, the coincidence of pregnancy and erysipelas must still be a rare one.

At the meeting of the American Gynæcological Society, the discussion which followed Campbell's account of such a case[1] was conspicuous for the lack of personal experience detailed. Only one person present—Dr. Lyman—had seen a similar case.

Hervieux[2] reports but two cases observed during a practice of a number of years.

Witzel[3] saw it but twice in five hundred and sixty-eight cases.

Winckel[4] saw it three times in one thousand and eleven cases.

In one thousand cases published by Coates,[5] the complication did not arise.

The records of the epidemics of puerperal fever following erysipelatous infection present an entirely different class of cases, cases in which a large and open wound, the uterus itself, has absorbed poison in a manner similar to absorption by other wounds; while in the cases mentioned above these conditions did not exist.

I have designated this appearance of erysipelas during pregnancy a coincidence, for it can scarcely be dignified with the name of "puerperal erysipelas" as proposed by Hervieux. Its rarity, the fact that it may appear at any period of pregnancy, the fact that it only under certain conditions leads to uterine inflammation, and the fact that it follows no law in

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[1] Trans. Am. Gy. Soc. 1881, p. 244.

[2] Gaz. Méd. de Paris, 1865, p. 40.

[3] Berliner klin. Wochensch. No. 28, July 11, 1881.

[4] Archiv f. Gynäk. No. xiii. p. 387.

[5] Brit. Med. Journ. 1882, vol. 1. p. 1148.

No.	By whom reported.	Period of pregnancy.	Variety and situation of the erysipelas.	Time of premature labor.	Condition of child.	Condition of mother.	Remarks.
1	Campbell. Trans. Am. Gyn. Soc., 1881, p. 244.	Eighth month of seventh pregnancy.	Cutaneous; of face.	Six days later.	Child living and healthy.	Left bed on 9th day, well.	
2	Same.	Advanced stage of first pregnancy.	Cutaneous; of face.	Not stated.	Not stated.	Puerperal peritonitis and death.	
3	Lyman. Trans. Am. Gyn. Soc., 1881, p. 244.	Not stated.	Not stated.	Not stated.	Not stated.	Recovery.	
4	Hill. Month. Journ. Med. Sci., 1850, p. 299. Am. Journ. Med. Sci., July, 1850.	Seven months.	Not stated.	Not stated.	Born with marks of erysipelas.	Death same day from malignant puerperal fever.	This patient was nursing her father and mother who were ill with erysipelas—the former with phlegmonous variety of the hand and arm. Other cases of puerperal fever followed.
5	Same.	Near full term.	Cutaneous; of face.	Two days later.	Born with erysipelas, from which it died one week later	Recovery.	Although this case recovered, the midwife that attended it produced puerperal fever in the next case of labour she attended, presumably by transfer of erysipelas poison.
6	Hervieux. Gaz. Méd. de Paris, 1835, p. 40.	Eight months.	Cutaneous; of face.	Two days later.	Living and healthy.	Left hospital two w'ks later.	
7	Same.	Eight and a half months.	Cutaneous; of face and entire neck.	Five days later.	Living and healthy.	Erysipelas lasted ten days; recovery.	
8	Witzel. Berl. Klin. Wochenschr., No. 28. July 11, 1881.	Seven months.	Cutaneous; of face.	Did not abort; went into full term.	Living and healthy.	No bad symptoms.	
9	Reid. Br. Med. Journ., May 16, 1874, p. 647.	Last weeks of pregnancy.	Cutaneous; of face and head.	Two days later.	Living and healthy.	Recovery in ten days.	After delivery erysipelas increased in extent and severity; on third day change for the better.
10	Same.	Not stated.	Cutaneous; left arm and part of left side.	Not stated.	Not stated.	Recovery.	
11	Alison. Related by Kneeland, Am. Journ. Med. Sci. April, 1846, p. 324.	Three months.	Of breast.	Not stated.	Not stated.	Puerperal fever and death.	
12	Elsdale. Assoc. Med. Journ., Feb. 18, 1853, p. 148	Fifth month of seventh pregnancy.	Cutaneous; of face, head, and neck.	Seventeen days later.	Not stated.	Recovery; no bad symptoms.	This case was followed by several cases of puerperal fever, and the attendant upon one of the cases contracted erysipelas of the face from which she died.
13	Scholefield. Lancet, June 8, 1867, p. 728.	Not stated.	Cutaneous; of face, neck, and scalp.	Not stated.	Living and healthy.	Recovery.	The erysipelas disappeared as the labour progressed, and when the child was born there was no trace of redness.
14	Holthouse. Med. Times and Gaz., April 3, 1869, p. 355.	Ninth month.	Left leg, foot, and under surface of l. thigh. Phlegmonous.	Twelve days later.	Living and healthy.	Recovery.	

No.	By whom reported.	Period of pregnancy.	Variety and situation of the erysipelas.	Time of premature labor.	Condition of child.	Condition of mother.	Remarks.
15	Crawford. Am. Journ. Med. Sci., Oct. 1873, p. 442.	Last days of pregnancy.	Phlegmonous; hand and fore-arm; pus in metacarpo-phalangeal-joint.	Not stated.	Living and healthy.	Died five days later with all the symptoms of puerperal fever.	Epidemic erysipelas was prevalent at the time. Great care was taken to prevent spread of inflammation by actual contact. When the erysipelas left the hand and arm peritoneal inflammation occurred.
16	Stewart. Br. Med. Journ., Sept. 5, 1874, p. 305.	Ninth month.	Cutaneous; of scalp and face.	Twenty-six hours later.	Living and healthy.	Recovery.	
17	Hatherly. Br. Med. Journ., April 17, 1875. p. 503	Far advanced in tenth pregnancy.	Cutaneous; scalp.	Three days later.	Living and healthy.	Recovery.	The midwife that attended this case attended others with no bad results following.
18	Smith. Lancet, July 31, 1875, p. 187.	Far advanced in pregnancy.	Throat and fauces.	Twenty-four hours later.	Died nine days later of icterus neonatorum.	Recovery in five days.	Daily rigours and some abdominal tenderness until fifth day, when the erysipelas left her.
19	Ford. Br. Med. Journ., June 2, 1877, p. 677.	Near full term.	Cutaneous; of face.	Two days later.	Living and healthy.	Recovery in three days.	Flow of milk early established. The child showed no repugnance to taking it.
20	Fry. Br. Med. Journ., July 21, 1877, p. 71.	Seven months.	Cutaneous; of face	Three days later.	Living and healthy.	Recovery.	Child was put to the breast ten days after the departure of the erysipelas.
21	Atthill. Am. Journ. Med. Sci., Oct. 1877, p. 586.	Not stated.	Cutaneous; of face.	Not stated.	Not stated.	Probable recovery.	Of ten puerperal women in adjoining wards, nine were attacked with fever and died. The only patient not attacked was a case of abortion at the third month.
22	Godfrey. Br. Med. Journ., Jan. 11, 1879, p. 67.	Seven and a half months.	Cutaneous; of head and face.	Twelve hours after chill and twelve hours before appearance of erupt'n.	Not stated.	Recovery.	Commenced to nurse child on the third day.
23	M. Arnozan. La France Méd. 1879, p. 234. Phila. Med. Times, June 7, 1879, p. 234.	Third month.	Head and neck; cutaneous; disappeared in 4 days; a few days later appeared again.	Soon after second attack.	Not stated.	Died two weeks later of puerperal fever.	
24	Jones. Bost. Med and Surg. Journ., vol. cxix. 1883, p. 293.	Eight months.	Cutaneous; of face.	Two days after chill.	Living and healthy.	Recovery.	No redness of integument noticed until labour commenced. Erysipelas lasted ten days.
25	Wardwell.	Three months.	Cutaneous; face and back.	Two days later.		Recovery.	

the time of its appearance and disappearance, place it in the same category with other eruptive diseases attacking a pregnant woman; in other words, it is but a chance complication. In analyzing the twenty-five cases in the above table it will be seen that in those (20) in which the stage of pregnancy when erysipelas appeared is mentioned, it occurred at all periods from the 3d to the 9th month, viz:—

3d month, 3 times.
5th " 1 time.
7th " 4 times.
8th month, 4 times.
9th " 8 times.

The majority occurred during the later periods of pregnancy.

In all but one case (8) premature delivery followed at periods varying from 12 hours before to 17 days after, the majority being in the course of the first 48 hours after the appearance of the blush. In two cases (22, 24) labour came on in the interval between the initial chill and the first reddening of the integument. Of the 25, 20 recovered without uterine complication, and 5 died. A mortality of 20 per cent. The question now arises why did a fatal result ensue in these five cases? An attempt to answer this question necessitates a comparison of the case as regards the situation and variety of the erysipelas and the form of treatment pursued.

And, in the first place, is the situation of the erysipelas to be taken into account in forming a prognosis?

Hervieux states that the tendency of erysipelas complicating pregnancy is to cause abortion, but that the cases recover without puerperal fever. The two cases upon which he apparently bases this statement were both cases of facial erysipelas. In the table, 19 were cases of erysipelas of the face alone, or of the face, neck, scalp, and throat. Of these, 2 died, or 10.5 per cent.

Of the remaining cases (6), in two there is no mention of the situation of the erysipelas; in four it was of other portions of the body; of the latter, 2 died, or 50 per cent.

But although the percentage of deaths seems from this statement to be so much greater in erysipelas of the trunk and extremities than in that of the face, I can scarcely believe that the difference is as great as it appears; for a death-rate based upon a small number of cases is never a fair one; and in one of these cases (15), at least an element existed which may have had a contributing force, *i.e.*, the presence of pus. One of the most severe cases (14), and one apparently most dangerous, in which the erysipelas attacked the thigh, was followed by no bad result.

This conviction receives a further confirmation from the fact that in the erysipelas of puerperism, there appears to be no law of situation which determines its fatality. Hervieux mentions 4 such cases of erysipelas of the nates and vulva, two recovered. Sidey[1] relates a case of recovery, the erysipelas being facial.

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[1] Edin. Med. Journ., vol. vii. p. 88.

Thorburn[1] details a case of severe phlegmonous erysipelas of the thigh, in which the woman nursed her baby during its entire course.

On the other hand, Lühe[2] gives a case of facial erysipelas attacking a woman two days after delivery, and later setting up puerperal fever; and Hugenburger[3] gives 15 cases with 7 deaths, the mortality evidently not depending upon the situation of erysipelas.

Does then the *variety* of the erysipelas as distinguished by us play any important role in determining its fatality? Thorburn[4] infers that the phlegmonous variety is most often efficient in causing puerperal fever. In the table, only two cases are of the phlegmonous variety; both caused abortion. In the one recovery took place, in the other uterine inflammation and death. On the other hand, two cases of facial erysipelas ended in death. While this is manifestly too small a number of cases upon which to base a theory, it is interesting to note the varieties of the erysipelas from which the epidemics of puerperal fever have taken their origin. In the great number of instances recorded by Kneeland,[5] the form of erysipelas was mainly phlegmonous in character. Hill[6] gives two instances of erysipelas followed by puerperal fever; in the one originating in a phlegmonous erysipelas of the hand; in the second in a cutaneous erysipelas of the face.

Dr. Dutcher[7] mentions a case of phlegmonous erysipelas followed by 7 cases of puerperal fever directly traceable to it; while Elsdale transferred the poison of cutaneous facial erysipelas to 3 puerperæ, 2 of whom died.

Alderson[8] attributes 3 cases of puerperal fever to conveyance of contagion by himself after handling a severe case of erysipelas of the scrotum; while 9 cases followed the introduction of a single case of facial cutaneous erysipelas into the wards of the Rotunda[9] Lying-in-Hospital, and these instances might be multiplied. In this connection, Holthouse says,[10] in discussing his case, "the occurrence of the puerperal state in a woman affected with phlegmonous erysipelas might be looked upon as a serious complication and as offering but small prospect of recovery to the patient. This case illustrates the importance of drawing a distinction between the many forms of disease which are doubtless as distinct in their origin as typhoid fever and roseola and which are, nevertheless, all confounded together by having the same name applied to them."

If then we would base our prognosis upon the appearance of the erysipelas it would seem that there are no reliable data upon which to proceed. The mere fact that the cellular tissue has become involved or that pus is present is of no value in forecasting the ultimate result. While it is probable that a case of erysipelas of the trunk and of the phlegmonous variety is more dangerous than a case of erysipelas of the face and of the cutaneous variety, there are no superficial appearances from which we can decide that one case is of a grave import while another is not. There are some subtler and less easily defined influences at work which in the one instance make erysipelas complicating pregnancy essentially harmless, and in another lead to a train of most disastrous sequelæ. Else why did the case of Holthouse recover?

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[1] Brit. Med. Journ., August 11, 1883, p. 260.

[2] Archiv für Gynäkol., No. xi. p. 205.

[3] Ibid., No. xiii. p. 387.

[4] Loc. cit., note to his article.

[5] Am. Journ. Med. Sci., April, 1846, p. 324.

[6] Ibid., July, 1850.

[7] Ibid., 1856.

[8] Brit. Med. Journ., Aug. 11, 1883.

[9] Am. Journ. Med. Sci., Oct. 1877, p. 586.

[10] Med. Times and Gaz., April 3, 1869, p. 355.

Why in the interesting case reported by Eagan[1] was there no puerperal fever, although all the conditions for a direct transfer of poison from phlegmonous erysipelas to a puerpera were present?

Or why, on the contrary, were the apparently harmless cases of facial erysipelas reported by Athill[2] and Elsdale[3] followed by such unfortunate results?

If we do not admit variety of poison, we must certainly admit other influences inappreciable by the senses: either peculiar atmospheric conditions, or the relationship, whatever it may be, between erysipelas and puerperal fever, so strongly insisted upon by Minor,[4] and as strongly denied by Matthews Duncan,[5] or something remote from either. But this portion of the question has been a subject of discussion for a number of years, and each side still claims its adherents. While it is not the object of this paper to discuss it further, these several factors must not be lost sight of in forming a prognosis. 1. Whether the case be sporadic or one of a number. 2. Whether the erysipelas prevailing at the time be of a virulent type or not. These circumstances, I imagine, play a more important role than either the location or variety of the erysipelas. In explanation of the good result obtained in Campbell's case, Dr. Mary Putnam Jacobi[6] ingeniously suggested that the erysipelas being a disease of the lymphatics confined itself to that system without affecting the blood. In five of the above reported cases, however, it *did* produce uterine inflammation; and it is also interesting to note that in one of the cases[7] in which there was no puerperal fever, the child was born with marks of erysipelas, showing that the latter was by no means a mere "cutaneous explosion." Reid[1] suggests in a similar case that "the poison having been located before labour came on remained so, and wore itself out without invading the uterus or the system at large;" in other words, "erysipelas and puerperal fever being the same diseases, the attack was a prophylactic against the severer form of the diseases." But, here again, as Reid himself suggests, one attack of erysipelas is by no means a prophylactic against another, and the cases on record in which it did not act as a prophylactic are sufficiently numerous to lead one to doubt the accuracy of the explanation.

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[1] N. Y. Med. Journ., xxii., Nov. 11, 1882, p. 556. He relates that he had a case of severe phlegmonous erysipelas, which he incised and evacuated pus. He washed his hands with soap and water, and five hours later delivered a woman, without having taken the precaution to disinfect his hands. No uterine symptoms followed.

[2] Loc. cit.

[3] Association Med. Journ., Feb. 18, 1853, p. 148.

[4] Erysipelas and Child-bed Fever, Cincinnati, 1874.

[5] Edin. Med. Journ., No. xxi. p. 744.

[6] Discussion following presentation of Campbell's case. Trans. Am. Gy. Soc., 1881, p. 244.

[7] No. 5.

There is one modifying influence which must be taken into account in considering the above statistics, and that is the influence which treatment has had in changing the course of the disease. Unfortunately the details of many of the cases are so meagre that no result can be arrived at as to whether the treatment has been efficacious, or whether too active interference on the part of the attendant has resulted in direct inoculation of the uterus with erysipelas poison. It seems to me that this one factor of direct inoculation is a most important one in determining the future course of the disease. That the direct transfer of erysipelas poison from an individual to a lying-in woman is possible is undoubted; that women having erysipelas and becoming puerperæ may have puerperal fever, the above statistics show: but whether as the result of a direct transfer of the poison to the uterus or to a metastasis it is impossible to say.

Assuming that in the majority of the cases direct inoculation of the uterus took place, the further condition of virulence of poison must have been present. For, that the poison is not always easily absorbed the experience of Eagan proves, and from a perusal of the cases of recovery given in the table, it is probable, for aught said to the contrary, that there was ample opportunity for absorption of poison by the uterus, had it been so disposed, the happy issues being the result of mildness of attack rather than of any measures used to prevent the spread of the disease. But, even if the tendency of many of the cases is to recover, it is logical to direct treatment toward shutting out this possible mode of infection.

I was inclined, after the recovery of my case, to give the most credit to the intra-uterine douches which were administered in conjunction with large quantities of quinine, but Campbell gives all credit to quinine, which he used without the douches. Both cases would probably have recovered without the employment of any form of treatment; but even assuming this to have been possible, the indications for treatment were present in both. Especially would intra-uterine douches be necessary in such a case as my own, in which manual exploration of the uterus was imperative, and where the air of the room was filled with the emanations of the other erysipelas patients. And while I can scarcely believe that the patient would have recovered had the same conditions been present during its progress as in Hill's case, or as in the case related in the *Association Medical Journal*, January, 1854, p. 92,—where a practitioner conveyed erysipelas to a puerperal woman three days after he had visited the erysipelas case, and after a rigid disinfection of hands and clothes.—yet the treatment would prove efficacious in overcoming poison of a less virulent type, perhaps in such a case as that related by Smith,[1] concerning which he asks: "Is it possible that the speedy exhibition of quinine to cinchonism and the use of an antiseptic injection were the means of warding off in this case an impending attack of puerperal fever?" The following is a recapitulation of the results obtained from a review of these cases.

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[1] Brit. Med. Journ., May 16, 1874, p. 647.

1. Erysipelas may attack a pregnant woman at any period of pregnancy, especially during its later stages. 2. The erysipelas is most often sporadic. 3. The situation of the erysipelas may be on any portion of the body, usually upon the face. 4. The variety of the erysipelas may be either cutaneous or phlegmonous, usually the former. 5. Premature labour takes place almost invariably, and usually within forty-eight hours after the initial chill. 6. The tendency of such cases is to recover without uterine inflammation. 7. It is impossible to base a prognosis upon either the position or the variety of the erysipelas.

One further circumstance has a practical bearing, *i. e.*, the time at which the child can be put to the breast. In the case of severe phlegmonous erysipelas related by Thorburn, the child nursed during its entire course; no bad results followed. In Case 19 the child was put to the breast on the third day; no bad symptoms. In Case 20 the child did not take the breast until ten days after the disappearance of the erysipelas.

But the following case (No. 13) related by Scholefield would show that putting the child to the breast, even after disappearance of the erysipelatous blush, is by no means without danger. He says the erysipelas disappeared as the labour progressed, and when the child was born there was no trace of redness. There was no recurrence of the disease, and the mother recovered well. The child was put to the breast four days later, although Scholefield had forbidden such action. It began to have erysipelas of the right thumb, which spread over the arms and body, and which later resulted in the child's death.

Scholefield draws from this occurrence the following conclusions:—

1. The secretion of the mother contained a poison. 2. This poison existed in the blood, and although it produced no apparent symptoms in the mother, it was yet potent enough to produce fatal erysipelas in the child.

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[1] Lancet, July 31, 1875, p. 187.